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## **Sound Leadership: A Tool for Harnessing the Educational and Economic Values of Indigenous Languages**

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### **Abstract**

*Africa is one of the world's richest continents laden with tangible and intangible natural resources. Despite the wealth of natural resources, many African citizens are still living in great penury, frustration and hopelessness. Striving to provide solution to the challenges of poverty in Africa may hold no water without the recognition of the role and impact of indigenous languages in the educational and economic sectors. It is observed that developed countries ardently project, preserve, protect, promote and commodify their languages for educational and economic purposes while developing countries lack the political will to do the same for their indigenous languages, hence the failure to harness the values thereof. The paper argues that the diverse and dynamic indigenous language heritage is an enabling resource for developing communities to actively participate in the knowledge economy and initiate development within their communities themselves. The knowledge economy is the economic part of the information society in which the creation and utilization of knowledge play a principal role in the creation of wealth. African leadership must strive to enable most of the indigenous languages to become the instruments of work and scientific understanding. The study argues that with the right leadership, the educational and economic values of indigenous languages can be harnessed.*

**Keywords:** Sound leadership, educational, economic, indigenous languages

## **Introduction**

Africa is one of the richest continents laden with tangible and intangible natural resources. In the ranking of resource rich countries by their aggregate natural resources endowment, the top 10 in Sub-Saharan Africa are Nigeria, South Africa, Angola, Equatorial Guinea, Gabon, Sudan, Tanzania, Zambia, Botswana, and Republic of Congo (Ivorski, 2018). In spite of the wealth of natural resources, many African citizens are still living in great penury, frustration and hopelessness (African Leadership – African Holocaust Newsletter (2014)). Striving to provide solution to the challenges of poverty in Africa may hold no water without the recognition of the role and impact of indigenous languages in the educational and economic sectors.

In many African countries, little or no value is placed on indigenous languages; black African is the only region in the world where languages are used only for communication within socio-cultural groups. On the contrary, it is observed that developed countries ardently project, preserve, protect, promote and commodify their languages for educational and economic purposes while developing countries lack the political will to do the same for their indigenous languages, hence the failure to harness the values thereof.

The history of great nations as Afegbua and Adejuwon, (2012) observes has been linked to visionary and purposeful leadership; be it in advanced industrialized countries or developing nations. He adds that respected, visionary leaders that are of proven integrity are needed to pilot the affairs of the nations of Africa and such leaders must have vision and mission.

Languages, whether indigenous or foreign, are indispensable tools in the life of individuals because there is no aspect of human activities that can be successful without the effective use of language (Ayodele, 2013). It is a phenomenon that fosters communication and enhances national development as it enables interactions for economic, educational, social, religious and political purposes (Benson, Okere & Nwauwa 2016). Language is not only a medium of communication but also the main economic ingredient of a wide range of language commodities or language products and service marketed by a number of sectors (News flashes, 2010).

Most African leaders have not seen much value in African languages. They seem to be reluctant as Mutasa (2003) points out to ensure that African language, by appropriate legal provision, assume their rightful role as official language of communication in public affairs, administrative and educational domains. No one seems to take African languages seriously. The net effect of the colonial legacy is that the dominance of imported languages which began in the colonial period has persisted till today (Bamgbose, 2011). The African Leadership Newsletter of April 28, 2014 captures the situation as follows:

Corruption is not only about stealing funds; it is also about putting the wrong people in prime positions. People who have neither the passion (sincerity) or the qualifications (skills to do the job) - this form of corruption is crippling Africa's development.

The situation in most African countries, however, is that language planning processes are defective. Commonly encountered situations include policy deficit (usually referred to as absence of policy) propaganda policy, non-implementation, and lack of

political will. Even when there is a genuine policy in favor of an indigenous language, failure to indicate implementation steps and procedure as well as adequate provision of funds may stultify the policy. In fact, it may rightly be stated that non-implementation is the bane of language planning in Africa.

This paper contends that sound leadership is the greatest need of the African nations to harness the educational and economic values of indigenous languages. The paper explores the educational and economic values of indigenous languages and proposes practical steps to unlock them through sound leadership in order to benefit the speakers of indigenous language.

### **Conceptual and Theoretical Review**

Language is defined as “the principal system of communication by particular group of human beings within the particular society of which they are members” (Lyons, 1981). It is also “the systematic conventional use of sounds, signs or written symbols in a human society, for communication and self-expression” (Crystal, 1997). Expatriating on the foregoing definitions of language, Ene, (2007) adds that language is “the unique property of human beings and all the developments of man; be it intellectual, ethnical, political, social or economic resolve entirely on the instrumentality of language”. UNESCO (2008) also portrays language as

A system of symbols or words arranged to convey meanings and enable people to communicate either verbally or in writing. Language is an important component of one’s identity. It enables people to communicate as specific people and determine participation, access to knowledge, leadership and depth of understanding.

UNESCO's definition is significant in that it views language as an important component of one's identity. This is to say that language identifies an individual. It is an aspect of culture by which people perceive, communicate, and frame their world. Language is also a means of sharing cultural heritage. Ayodele (2013:2) asserts that,

Language is an important instrument for the development of human beings as political animals. No meaningful development can take place in a human community without language. As an instrument of communication, language makes it possible for the people in any environment to interact and co-exist, thus paving way for the continuity of the society. Human beings get equipped for their maximum self-realization and self-development through the use of language.

UN NEWS (2019/02) further comments that,

“Language is culture, it is an expression of a cosmivision and that is a way of seeing the world”, if languages disappear.... The memories that they bear disappear as well as the people that speak them”.

An indigenous language is an intangible aspect of cultural heritage, but provides an important surrogate indicator of the maintenance of traditional knowledge. Indigenous language is fundamental to understanding values, beliefs, ideology and other tangible aspects of culture. They are symbols of the people's identity, vectors for values, ways of life and expressions of their connections with earth and are crucial for survival (Kipuri, 2009).

Leadership is the ability of an individual or a group of individuals to influence and guide followers or other members of an organization. It involves making sound and sometimes difficult

decisions, creating and articulating a clear vision, establishing achievable goals and providing followers with the knowledge and tools necessary to achieve those goals (Pratt, 2017).

Tangible natural resources are resources that exist without actions of human kind; they include: land, mineral deposits, gas, oil, plants etc. Tangible cultural heritage refers to physical artifacts produced and transmitted inter generationally in a society. It includes artistic creations, built heritage such as buildings and monuments and other physical or tangible products of human creativity that are invested with cultural significance in a society. 'Intangible cultural heritage' indicates 'the practices, representations, expressions, knowledge, skills as well as the instruments, objects artifacts and cultural spaces associated there with that communities, groups and in some cases, individuals recognize as part of their cultural heritage (UNESCO, 2003). Intangible natural resources include: language, oral traditions, local knowledge, traditional skills etc. Languages are vehicles for the expression of intangible cultural heritage and therefore are part of intangible cultural heritage.

### **Educational and Economic Values of Indigenous Languages**

Research has shown that any language is capable of being developed to the highest levels of science and technology provided its owners have a patriotic will to do so (Tarugarira 2009). It has been proved that learners learn better in their mother tongues but it is unfortunate that almost all the school subjects in most African schools are taught in the language of the colonial masters. Part of the meager resources used for procuring materials written in foreign languages could be diverted to producing and buying materials written in the indigenous languages. When Indigenous languages are used as research results have shown, many scholars

have contended that it is capable of enhancing cognitive understanding and removing pedagogical barriers in learning. Some of these researches include:

- The University of Bradford Research in 1978 (Klein, 1994)
- The Native American Language Research (Ramirez, 1998)
- The Ife Six-Year primary Project (Afolayan, 1976 and Bewaji, 2002) and
- The Swahili Research (Salawu 2002).

In order to enable a child to develop curiosity, manipulative ability, industry, mechanical comprehension etc. more easily, Fafunwa (1975) argues that the mother tongue remains the most natural way to learn. In line with the foregoing, Emenajo (1996), emphasizes that “The training of the mind in the understanding of the world around is best done and realised in the language in which the students are most familiar”. Uzochukwu (2001) submits that economic prosperity and technological breakthrough cannot be achieved in foreign language. This is to say in the words of Mazrui, A. (2002) that no nation can develop without the use of its native language(s).

Toeing the line of Emenajo, Ezikeojiaku (2007:114) observes that people think more productively in their indigenous languages and posits that, "A Scientific impetus or technology acquired in a learner's indigenous language becomes second nature to the person". He reiterates that Nigeria and indeed Africa can only achieve mass scientific literacy needed for her technological and scientific development through the medium of indigenous languages. This is because as (Owen, 2010) affirms,

We live in information society in which the creation and distribution of information is the most significant economic, cultural, educational and social activities. The

knowledge economy is the economic component of the information society in which the production and utilization of knowledge play a principal role in the creation of wealth. The diverse and dynamic indigenous language heritage is an important enabling resource for developing communities to actively participate in the knowledge economy and spear-head development within their communities themselves. There is a lot that needs to be done in terms of the thinking of our people when it comes to indigenous languages. The perception that our indigenous languages are not fit for the purpose is preposterous, it merely requires a shift in mindset and dedication by its speakers to create a presence on the internet, design websites and develop sustainable products and services in that particular language. The most essential asset of a people is their own language; their mother tongue. No people under normal circumstances would want their mother tongue to die, for it is after all the language that makes them an ethnic entity or nation. With her own language, a nation identifies itself and ensures its perpetuation.

Also Daura (2014) points out: Experiences from Philippines, Mexico, Wales, Canada, Russia, Yugoslavia and Japan have however shown that indigenous languages are fit for all rung and levels of education as effective media of instruction. African languages are important because the social, political and economic development of the vast majority of the people of Africa depend on the proper and systematic use of their indigenous languages. Moreover, failure or refusal to use African languages in many domains adversely affects the African human and people's rights in general. These include their right to quality education, to good



health, to fair trial, to economic justice, to access information, to freedom of expression, etc. (From Prof. Lazarus Miti, South Africa).

### **African Countries and Indigenous Language Issues**

It is noteworthy that a few African countries have succeeded in choosing and implementing one national language. These include Tanzania, Kenya, Botswana, Somalia, Ethiopia, Central African Republic, Rwanda, Burundi, Lesotho, and Eswatini formerly Swaziland (Harris 2019). Proof of this is to be found in the statistics of official languages of Africa. Of 53 countries, indigenous African languages are recognized as official languages in only 10 countries. Arabia in 9 and all the remaining 46 countries has imported languages as official language as follows: French in 21 countries, English in 19, Portuguese in 5 and Spanish in 1. (cf. Bamgbose 1991:30-31).

Additional evidence of the continued dominance of imported languages is the medium of education which remains substantially in these languages, particularly at secondary and tertiary levels. On the other hand, as (Harris, 2019) observes:

Other African countries have opted for the recognition of more than one national language. These countries are: Namibia, South Africa, Zambia, Nigeria, Ghana, Zimbabwe and DR Congo to mention but a few. However, even if a language or a number of languages are recognised and declared as national or co-official languages of the State, these are often still eclipsed by colonial languages which seem to be deeply entrenched in the system. For example, Botswana recognises English and Setswana as official languages but most street signs and government notices are in English. Similarly, Tanzania which is lauded

as a beacon of hope when it comes to the promotion of an African language (Kiswahili) is often criticized for using English in areas where Kiswahili can also be employed. For example, English is used as a medium of instruction at Universities and as a language of foreign relations while Kiswahili could also be used as such.

In Nigeria, the case is not different as the comments below indicate:

The findings of the Political Bureau (1987) section 53 of the defunct 1979 constitution of the Federal Republic of Nigeria, which also state thus: Government shall promote the learning of indigenous languages. The business of the National Assembly shall be conducted in English and in Hausa, Igbo and Yoruba when adequate arrangements have been made thereof. The business of a House of Assembly shall be conducted in English but the House may in addition to English conduct the business of the House in one or more other languages spoken in the state as the House may by resolution approve.

The national constitution provides a policy and institutional framework for the protection, maintenance and promotion of all these languages (The Constitution 1996 Chapter 1) but the real problem lies with the implementation.

Harris opines that the only way to elevate the status of Africa's indigenous languages is to establish language regulating bodies that will monitor the use of indigenous languages in government and the private sector. This task can be given to either universities or independent institutions.

Frida (2013) proffers that "One major reason often advanced by African language policy-makers is the cost involved

in developing orthographies for such languages; instead African governments opt for the use of colonial languages because they are already developed and are easy to implement in all aspects of governance. Agreeing to the above, Harris (2019) adds that lack of collective will from Africa's leaders to promote African languages remains a big stumbling block for the revitalisation of these languages. Emphasizing further, Harris reveals as follows:

Besides the Harare Declaration on the establishment of national language policies in Africa, several other conferences have been held and initiatives have been devised to this effect. The Asmara Declaration of 2000 on African languages as well as the Conference on language-in-education, Juba, South Sudan, 2012 all emphasized the importance of using African languages in all aspects of governance, including as media of instruction in higher education but nothing fruitful came from these initiatives. Blame should also be apportioned to regional bodies that fail to promote indigenous languages. It was only when the former Mozambican President Joachim Chissano delivered a speech in an indigenous African language even though not his native tongue, i.e. Kiswahili, that the African Union declared all African languages official. So far this declaration is on paper only. Ever since Chissano's speech no African leader has delivered a speech in his or her native tongue at any of the AU sessions since the announcement. How does one take African languages seriously if African leaders themselves are ashamed of promoting them?

### **Harnessing the Educational and Economic Values of Indigenous Languages through Sound Leadership**

Burnaby, (1997) observes that using an indigenous language does not cost money, but it often takes money and/or energy and time to encourage people to use it. This, calls for selfless leaders who will sacrifice personal interests in order to do all that is needed to bring African indigenous languages to desirable standard. Obasola (2002:10), notes that no nation have achieved meaningful development socially, political and economically without the input of effective leadership. Talking on what it takes to harness the educational and the economic values of indigenous languages, Emenanjo (2000) affirms that “What is required includes “a positive and pragmatic conviction, political will, strong governmental and institutional backing and iron-clad commitment of native speakers”.

There is no gain saying the fact that quest for leadership is an undeniable fact in human history, especially in matters relating to both human and material resources as Afegbua (2012) reveals. In a simple and clear language, Adeyemi (2017) declares that Africa does not need charity; it needs good leadership, emphasizing that Africans are the only people who can liberate her citizen through education. Akita (2017) reasons that:

Africans must change their mind and actions; adding that “the keys to building your continent depends on your will power, persistent efforts and actions towards self liberation. Africans are the only people that can liberate her people (citizens) through education.

Acemoglu and Robinson (2017) assert that the major difference between developed countries and developing countries is in their political evolutions. Developed countries have political and

economic systems that are inclusive and offer opportunities for people to create wealth. According to the world summit on the information society held in 2003, an information society is one in which:

...everyone can create, utilize and share information and knowledge, enabling individual communities and people to achieve their full potential in promoting sustainable development and improving their quality of life..." (World Summit on the Information Society, 2003 as cited in Wesso, 2007)

The new freedoms afforded by the triumph of liberal economics have caused a resurgence in the concept of leadership in Africa as a deciding factor in the rational management of people and public affairs. Those countries which have benefited from enlightened leadership have experienced advanced development, while those which have not are hunched down in misery, victims of poor political management (Igue, 2010).

Going by Laing's (2013) description of sound leadership as rooted in an understanding that the complexity and seriousness of the challenges facing us calls for agents willing to influence, inspire and coordinate our collective responses; it is then clear that what Africans need as a matter of urgency are stewards that are disciplined by vision, knowing that what matters most is achieving the developments that favour the people it serves.

Political will as Laing suggests, is the compelling force for sound leadership quality; it is the ability to do what is relevant and what is attainable within the context of patriotic nationalism. It means personal or group sacrifices; it also implies the ability to implement policies that have a nationalistic importance and

relevant without allowing pockets of interest to detract from what should be of national benefits.

By dint of sound leadership, Japan has been able to design her mother tongue in enhancing cognitive understanding in her citizens. It developed its indigenous language to accommodate techno-scientific terms and this has resulted in techno-scientific breakthroughs even in the rural areas. In less than five decades, Japan which used to be among the third world/underdeveloped countries is now one of the most developed countries in terms of what their knowledge of science and technology offers them (Ademowo, 2012). Here is a good lesson for African leaders.

### **Conclusion**

This article has looked at sound leadership as the greatest need of the African countries to harness the educational and economic values of her indigenous languages. The paper identifies some of the educational and economic values of indigenous languages which when properly utilised have tremendous positive effect on the development of the countries in question. The best way to preserve a cultural heritage whatever it may be is to share it with others. This is an age-long secret which the European countries have used over the years to spread their languages all over Africa. Our language is an identity that can be introduced to the world. Spending money on other languages, encouraging our children to grab an opportunity for learning new language without any serious or proportionate effort at taking African languages cross the borders of Africa will only amount to killing the languages the more. African nations require leaders that will be devoted to unlocking the educational and economic values locked up in African indigenous languages.

The record of great nations has been connected to sound leadership be it in leading modern countries or developing nations. The advancement or stagnation of any country depends on the effectiveness of its leaders. Such leaders play significant roles in the socio-economic development and political emancipation of their countries. There is a very urgent need now for able, true and efficient leadership in African nations. Such leadership must be in the hands of qualified, competent, enlightened and honest person for the overall development of Africa.

**Suggestions:**

- Election of selfless; tested, trusted, and knowledgeable leaders of integrity to occupy sensitive positions of power.
- Appointment of leaders with ample knowledge of the African linguistic situation as language planners.
- Full implementation of the provisions of the Nigerian constitution on indigenous languages.
- Making African indigenous languages core subjects that must be credited for admission into higher institutions of learning.
- Making a pass in indigenous languages a minimum qualification for employment into public offices.
- Funding the translation of all science subjects into major indigenous African languages.

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## References

- Acemoglu, D. & Robison, J. (2017). “Why nations fail” [www.weforum.org](http://www.weforum.org). Retrieved 1/3/2020.
- Ademowo, A.J. (2012). “Indigenous languages and techno-scientific development in Africa”. In *Afro Asian journal of social sciences*. Vol. No.3.3 Quarter 111 2012. Retrieved – 1/27/2020.
- Adeyemi, S. (2017). “Africa doesn’t need charity, it needs good leadership” <http://www.weforum.org> – Retrieved 9/27/2019.
- Afegbua, S.I. & Adejuwon, K.D (2012). “The challenges of leadership and governance in Africa”. In *International journal of academic research in business and social science*. Vol 2 No. 9.
- Afolayan, A. (1976). “The six-year primary project in Nigeria”. In A. Bamgbose (Ed.) *Mother tongue education: The west African experience*. London, Paris: The UNESCO press.
- Akita, L.G. (2017). “African leaders’ quotes”. [https://www.goodreads.com /tag/African –leaders](https://www.goodreads.com/tag/African-leaders). Retrieved - 9/27/2019.
- Ayodele, O.A. (2013). “Language education: Catalyst for promoting social stability, national security and conflict resolution in Nigeria”. *Journal of ELT and Poetry*, 1 (1) 1-9.
- Bamgbose, A. (1991). *Language and the nation: The language in Sub-Saharan Africa*. Edinburgh: Edinburgh university press.
- Bewaji, J.A. I. (2002). “African languages and critical discourse”. In O. Oladipo, (Ed.) *The third way in African Philosophy: Essays in honour of Kwasi Wiredu*. Ibadan: Hope publications.



- Benson, O.V. Okere, I.V. & Nwauwa, E.B. (2016). "The Role of school libraries in the promotion of indigenous languages in Nigerian primary and post primary schools". *Library and information science digest*. Vol.9:24-30.
- Burnaby, B. (1997). "Personal thoughts on indigenous languages stabilization". In *Ian.ucc.nau.edu*. Retrieved – 1/3/2020
- Crystal, D. (1997). *English as a Global Language*. Cambridge: Cambridge University.
- Daura, J. (2014). Transformation of Nigeria through language education, *JORIND*, 12 (1) :10-15.
- Emenanjo (1996). *Languages and national policy on education*. (4th Edition). Lagos: Nigerian education research and development council press (NERDC) ISBN. 978-054-216-7.
- Emenanjo, E.N. (2000). "Language and cultures in a multilingual milieu: A pedagogic approach with emphasis on Delta state of Nigeria". *Languages education and society. Festschrift in Honour of Prof. Conrad Max Benedict Brann*. Maiduguri, Faculty of Arts. 1-13.
- Ene, I.O. (2007). "Nigerian language policy: Implication for teacher education in the education reform agenda". In Nworgu, B.G. (ed). *Optimization of service delivery in the edu sector. Issues and strategies*. pp.179-183. Nsukka: University trust publishers.
- Ezikeojiaku, P.A (2007). "Indigenous Languages for science and technology "In B.N Anasiudu et al (eds) *Languages and literature in developing countries*. Onitsha: Africana- First Publishers.
- Fafunwa, A.B. (1975). "Education in the mother tongue: A Nigerian experiment". The six year (Yoruba medium)

- primary education project at the University of Ife, Nigeria, *West African journal of education*, Vol 19, No.2, 213-227.
- Frida, K. E. (2013). "Examining African languages as tools for national development: The case of Kswahili". <https://www.researchgate.net> >2645. Retrieved - 1/11/2020.
- Harris C. (2019). "Linguistic decolonization: African languages still disadvantaged". <https://www.goethe.de>. Retrieved - 1/3/2020.
- Igue, J.O. (2010). "A New generation of Leaders in Africa: What Issues Do they face". [https://journals. Openedition.org](https://journals.Openedition.org)>po. Retrieved-1/2/2020
- Izvorski, I. (2018). "7 surprising findings about resource-rich sub-saharan African". <https://www.brooking.edu>>blog - Retrieved -10/23/2019.
- Klein, (1994). "The need to maintain mother tongue". Die suid-Afrikaan special issue on Education, 1994. <https://books.google.com.ng> >books. Retrieved - 10/23/2019.
- Kipuri, N. (2009). *State of worlds' indigenous people*. New York: United Nations.
- Laing, Z. (2013). "Providing Leadership in our time". <https://www.huffpost.com>>entry.
- Lyons J. (1981). *Language and Linguistics*. Cambridge: Cambridge University Press.
- Mazrui, A. (2002). *Black reparations in the era of globalization*. Bringhamton: The institute of global cultural studies.
- Mutasa, D.E. (2003). *The language policy of South Africa: What do people say?* University of South Africa: Pretoria.

- National Language Survey Report (2005) “Language and cultural expression”. Online version <https://alatsis.gov.au> – Retrieved - 1/27/2020.
- News flashes, (2010). “Creating wealth through indigenous languages”. [www.ngopulse.org](http://www.ngopulse.org)>article>creation. Retrieved – 1/9/2020.
- Obasola (2002) “Leadership in religious organisations and societies: Traditional Yoruba Perceptive”. In *CASTALIA*, Vol 12, No 2.
- Owen, C. (2010). “Creating wealth through indigenous languages”. [www.ngopulse.org](http://www.ngopulse.org). Retrieved - 10/1/2020.
- Political Bureau (1987). Section 53 of the defunct 1979 constitution of the Federal Republic of Nigeria.
- Ramirez, J.d. (1998). *SFUSD language academy: 1998 annual evaluation*. Long Beach: California state university Long Beach, center for language minority education and research. <https://books.google.com.ng>. Retrieved - 10/23/2019.
- Salawu, A.(2002). “Globalisation and indigenous language media”. *Ibadan journal of humanistic studies*, Nos. 11-12, 2001-2002, p. 45-58. Retrieved - Retrieved -10/23/2019.
- Tarugarira, G. (2009). “Rethinking the development nexus between indigenous language and capacity building in science and technology: A therapeutic approach to Africa's perennial development problems”. *Journal of sustainable development in Africa*. Vol. 10, no.4, pp. 192-199. Retrieved - 10/23/2019.
- UNESCO (2003). “Tangible and intangible cultural heritage: Practical implications for heritage management Approaches in Africa”. In *South African archaeological bulletin*. Vol.

61, 184 (Dec. 2006), pp. 166 – 171. <https://www.jstor.org>.  
–Retrieved – 11/29/2019.

UNESCO (2008). “International Year of Languages”. [www.unesco.org/culture](http://www.unesco.org/culture). Retrieved – 1/3/2020

Uzochukwu, S. (2001). “The role of Nigerian languages and culture in national development”. A keynote address presented at promoting Nigerian languages and culture, 6th annual national conference, Imo state university, 25<sup>th</sup> -29<sup>th</sup> November 2009.

Weso, H. (2007). *Presentation on digital broadcasting: Opportunities for local content development and multilingualism*. ICT policy development: Department of communication. RSA.